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10/805,223

03/22/2004

Svante Persson

20459-00348-US1

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EXAMINER

GELLNER, JEFFREY L

ART UNIT

PAPER NUMBER

3643

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
|--|-----------|---------------|
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3 MONTHS

01/11/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                                       |                                       |  |
|------------------------------|---------------------------------------|---------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/805,223  | <b>Applicant(s)</b><br>PERSSON ET AL. |  |
|                              | <b>Examiner</b><br>Jeffrey L. Gellner | <b>Art Unit</b><br>3643               |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 17 October 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 13,14,16-18 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13,14, 16-18, 20-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

The allowability of claims 13,14,16-18, and 20-22 is withdrawn because of the amended claim language to the independent claim, in particular, the change from “consisting of” to “comprising.” Rejections with prior art follow.

#### ***Terminal Disclaimer***

The terminal disclaimer filed on 17 October 2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of US 6,764,562 B1 has been reviewed and is accepted. The terminal disclaimer has been recorded.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 13, 14, 20-22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet (WO 98/55428; document BF on Applicants' SB08a) in view of Ludwig (US 5,551,725).

As to claim , 13, Langlet discloses a pyrotechnic, gas-generating composition (page 2, 1<sup>st</sup> para.) comprising GUDN (abstract). Not disclosed is a solid oxidizer to provide excess oxygen over the GUDN with the oxidizer comprising an oxide of a metal selected from the groups consisting of metals in Groups 7 - 12. Ludwig, however, discloses use of metal oxides from

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Groups 7-12 (col. 8 lines 4-18) to provide excess oxygen over the fuel (from “slightly oxidizer rich” of col. 8 lines 4-18), the fuel being HMX, RDX, or nitrocellulose (col. 7 lines 1-40) for which GUDN was intended to substitute (page 2, 3<sup>rd</sup> and 4<sup>th</sup> paragraphs). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the composition of Langlet by using the oxidizer of Ludwig so as to have a stable, high burn rate fuel (Langlet at page 2 last paragraph).

As to claim 14, the limitations of claim 13 are disclosed as described above. Not disclosed is the amount of oxidizer to generate carbon monoxide below 600 ppm when combusted. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Langlet as modified by Ludwig so as to use in gas generating systems (from Langlet at page 2 1<sup>st</sup> para.).

As to claims 20 and 21, the limitations of claim 13 are disclosed as described above. Not disclosed is the GUDN in an amount from 5-95% or 5-50%. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Langlet as modified by Ludwig by having the GUDN in an amount from 5-95% or 5-50% depending upon use of the composition.

As to claim 22, Langlet as modified by Ludwig further disclose a tablet (top of page 5 of Langlet).

As to claim 24, Langlet as modified by Ludwig further disclose a binder (from Langlet at page 2, 3<sup>rd</sup> para.).

Claims 16-18 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet (WO 98/55428; document BF on Applicants' SB08a) in view of Ludwig (US 5,551,725) in further view of Chi (US 5,074,938).

As to claims 23 and 16, the limitations of claim are disclosed as described above. Not disclosed is the use of a metallic boron moderator. Chi, however, discloses the use of boron as a moderator (col. 1 lines 15-29). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Langlet as modified by Ludwig by using a moderator as disclosed by Chi so as to increase burn rate (see Chi at col. 1 lines 15-29).

As to claims 17 and 18, Langlet as modified by Ludwig and Chi further disclose the metallic boron at amounts up to 10% or from 0.5 to 3% wt. ("2% to about 6%" from Chi at col. 1 lines 15-29).

Claim 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet (WO 98/55428; document BF on Applicants' SB08a) in view of Ludwig (US 5,551,725) in further view of Blomquist (US 6,004,410).

As to claim 25, the limitations of claim 13 are disclosed as described above. Not disclosed is the use of GDN. Blomquist, however, discloses the use of GDN (col. 2 lines 20-21). It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the composition of Langlet as modified by Ludwig by adding GDN to the fuel as disclosed by Blomquist so as to increase effectiveness when used in a gas generator system (see Blomquist at col. 2 lines 8-22).

***Response to Arguments***

Applicant's arguments filed 17 October 2006 have been fully considered but they are not persuasive. Applicants' argument is that the acceptance of a proper terminal disclaimer would overcome the double patenting rejection (Remarks page 8, 2<sup>nd</sup> para.). The terminal disclaimer does overcome the double patenting rejection but the amended claim language dictates prior art rejections.

***Conclusion***

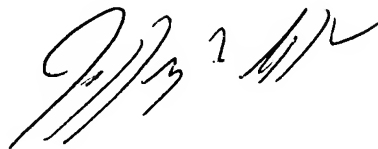
Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey L. Gellner whose telephone number is 571.272.6887. The examiner can normally be reached on Monday-Friday, 8:30-4:00, alternate.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Poon can be reached on 571.272.6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeffrey L. Gellner  
Primary Examiner  
Art Unit 3643